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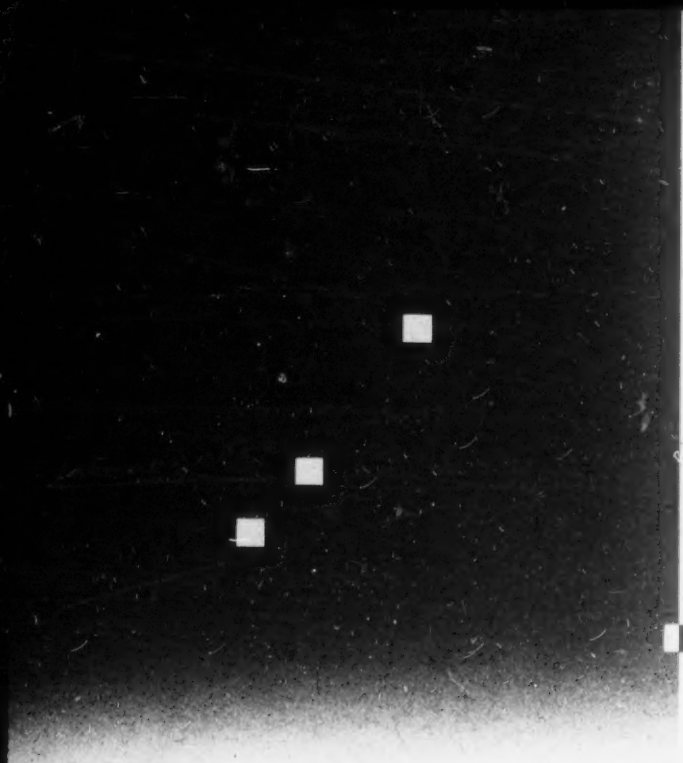

SOLID WASTE MANAGEMENT IN THE FOOD DISTRIBUTION INDUSTRY

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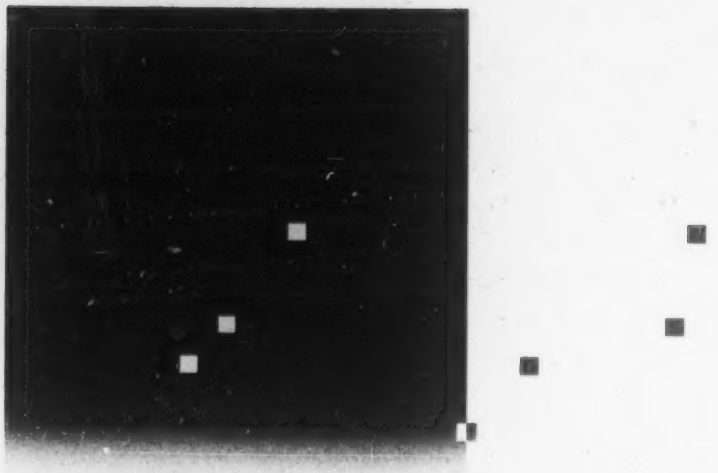

SOLID WASTE MANAGEMENT IN THE FOOD DISTRIBUTION INDUSTRY

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The Food Marketing Institute (FMI) is a nonprofit association conducting programs in research, education and public affairs on behalf of its 1,600 members—food retailers and wholesalers and their customers in the United States and overseas. FMI's domestic member companies operate approximately 19,000 retail food stores with a combined annual sales volume of $180 billion—more than half of all grocery sales in the United States. FMI's retail membership is composed of large multi-store chains, small regional firms and independent supermarkets. Its international membership includes more than 210 members from over 55 nations.

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EXECUTIVE SUMMARY

In May 1989, the FMI Board of Directors approved a solid waste policy statement for the food distribution industry outlining the areas in which supermarkets can promote sound solid waste management practices. In August of the same year, FMI surveyed its members on their solid waste policies and procedures to measure the industry's current level of waste management activity. The results provide a first look at how FMI member companies are handling solid waste management issues and will serve as a benchmark for future surveys. A brief summary of the survey results follows.

Forty-five percent of companies surveyed indicated that they are tracking their solid waste disposal costs or tonnage. Generally, the larger the company, the more likely it is to track these figures. Costs for solid waste removal for 1988 and 1989 are found to have increased an average of 27 and 29 percent, respectively. As expected, there is a greater awareness of solid waste costs among companies operating in areas with mandatory recycling laws or ordinances than with those without such restrictions. Sixty-six percent of respondents operating in these areas track solid waste disposal costs compared to 38 percent outside regulated areas.

Eighty-seven percent of wholesalers and retailers report picking up recyclable waste products from their stores for consolidation at the distribution center. Independent operators similarly report 94 percent involvement in some degree of recycling. Cardboard is by far the most frequently recycled material. Ninety-five percent of large retailers/wholesalers and 80 percent of independents involved in recycling collect this material.

When questioned on problems experienced in their waste collection or recycling programs, 20 percent of companies noted increased disposal costs. Nineteen percent mentioned a lack of consistent market price for recyclable material.

Several companies responding to the survey operate in states that mandate recycling in some form. As expected, responses from these companies indicate a higher degree of participation in recycling of materials such as plastics and glass (items with lower market value but frequently included in mandates) and a greater likelihood of serving as a community collection center for recyclable items. These same repondents, however, also cite significant problems with market inconsistencies for recyclable items as well as space limitations for collecting these items in their stores. Market inconsistencies were frequently mentioned as a problem by survey respondents.

Thirty percent of retailers report one or more of their stores serving as community collection centers. The percentage of retailers operating community collection centers increased relative to the size of the company. Seventy-one percent of these centers collect aluminum, 50 percent collect glass/bottles, 42 percent collect paper/paperboard and 29 percent collect plastic.

Twenty-six percent of all companies report participation in some kind of community education program on recycling or solid waste.

The survey results emphasize the importance FMI member companies place on solid waste management issues. Escalating disposal costs, concern for the environment, legislative mandates and recycling for profit opportunities are focusing the industry on the need for a more proactive stance toward waste management.

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PURPOSE

Food retailers and wholesalers have a long history of recycling. More recently, the industry has been faced with an expanding scope of solid waste management issues to which they must respond. The Food Marketing Institute recognized the need for a detailed look at how the supermarket industry is adapting to these changes and to provide information on where the industry stands and where it can increase its involvement.

This survey is the first review of the diverse ways our members are grappling with solid waste management. The survey will serve as a benchmark for future surveys and as a source of information on current and planned industry practices. FMI and its members will use the information gained through this survey in dialogues with public officials as we seek to educate lawmakers, policymakers and the news media about the food distribution industry's perspective and the need for comprehensive planning as opposed to quick-fix approaches.

This report provides a summary of the survey findings. If you have any questions or comments concerning the published findings of this report, please contact Peter Larkin at the Food Marketing Institute in Washington, D.C. at (202) 452-8444.

INTRODUCTION

America is facing a solid waste disposal crisis. Eighty percent of the nation's solid waste is disposed of in landfills. More than 14,000 landfills have been shut down since 1978, and one-third of the remaining 6,600 are expected to close within the next five years. Increased dumping fees at landfill sites and added transportation costs for hauling solid waste, many times out of the state of origin, have added to significant increases in costs for disposing of solid waste.

Increased disposal costs have significantly affected the supermarket industry. At the same time, policy makers at all levels are considering alternatives to burying trash and are looking to legislate methods of solid waste management including recycling, source reduction, packaging restrictions and taxes. Over the past two years, attention to these issues has heightened greatly and FMI retail and wholesale members' concerns have grown. In December of 1988, FMI responded to those concerns by creating a member task force to address the serious solid waste policy issues confronting the food distribution industry. In May of 1989, the FMI Board of Directors adopted a far-reaching policy statement that highlights the important role the industry can play in the areas of source reduction and recycling.

As a part of developing solutions for the industry, FMI needed factual information to determine how the membership was already involved in managing its waste. This survey was designed to confirm the industry's current practices and to shed light on areas where change may be expected.

FMI and the entire food distribution industry are committed to working with other industries, environmental groups, and Federal, State and local officials in a coordinated effort to develop practical solutions to solid waste management problems. We believe FMI member companies can serve an especially important role in this effort. Indeed, because of their daily contact with our nation's consumers and suppliers, and because of the volume of products that move through their warehouses and stores, food retailers and wholesalers have a unique opportunity to promote the expansion of recycling and source reduction programs.

WASTE DISPOSAL COSTS

Less than half of all companies (45 percent) reported tracking their solid waste disposal costs or tonnage. Wholesalers were more apt to collect these costs than retailers. Almost three quarters of those in the wholesale community (74 percent) said they tracked these costs. Of the retailers having sales greater than $500 million annually, over 80 percent keep this information with the percentage dropping significantly for companies having lower annual sales (Table 1). There is a greater awareness of solid waste disposal costs by companies operating in areas with mandatory recycling laws or ordinances compared with those without such restrictions. Sixty-six percent of companies operating in areas with mandatory recycling laws track their solid waste costs or tonnage while only 38 percent do this in unregulated locations.

Table 2 details the respondents average costs for solid waste removal for 1987 through 1989. A steady increase in these costs is reported for both wholesale and retail companies. Retailers report an average increase from $561 thousand to $588 thousand and wholesalers show an increase from $160 thousand to $210 thousand over this 3 year period. Table 3 shows increased waste disposal costs in terms of percentage for 1987-88 and 1988-89. Costs were up 27 and 29 percent respectively.

TABLE 1

WHETHER COMPANY TRACKS SOLID WASTE DISPOSAL FIGURES (COSTS/TONNAGE)

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	182	19	163	89	23	11	6	10	16
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
YES	81	14	67	29	10	3	2	8	14
	44.5	73.7	41.1	32.6	43.5	27.3	33.3	80.0	87.5
NO	101	5	96	60	13	8	4	2	2
	55.5	26.3	58.9	67.4	56.5	72.7	66.7	20.0	12.5
DK/NA/REF	3	-	3	2	-	-	-	-	1

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 2

(AVERAGE & SUMMARY) COST FOR SOLID WASTE REMOVAL FOR (DOLLARS IN THOUSANDS):

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
1987	62	11	51	23	7	2	1	6	11
	490.16	160.38	561.28	9.08	61.18	233.47	230.00	756.98	1927.10
1988	73	13	60	27	8	3	2	7	12
	505.94	184.38	575.62	15.59	63.82	214.45	187.37	848.78	2029.35
1989	72	14	58	26	9	3	2	6	11
	514.51	209.78	588.07	18.94	78.45	243.23	206.50	736.41	2385.81

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 3

PERCENT COST CHANGE SUMMARY- COST FOR SOLID WASTE REMOVAL FOR:

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
1987 - 1988	50	9	41	17	6	2	1	4	10
	26.560	27.444	26.366	35.294	29.000	25.500	15.000	6.000	17.000
1988 - 1989	56	10	46	19	8	3	2	3	11
	29.232	39.500	27.000	29.737	36.250	19.000	8.000	46.000	16.000

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

REGULATIONS

Twenty-three percent of all retail companies responding operate at least one store in an area having mandatory state or local recycling laws. Of course the restrictions or requirements placed on retailers vary greatly from jurisdiction to jurisdiction. Some laws require retailers to accept empty beverage containers (bottle deposit states), where some operate in areas with comprehensive solid waste management statutes (source separation and curbside collection requirements). No attempt was made in the survey to determine the exact nature of the mandatory state or local law or how it impacted retail solid waste management practices.

Of the companies with stores in these areas, 31 percent have recently changed their solid waste handling procedures. This compares with only 8 percent of those operating in unregulated areas (table 4).

TABLE 4

WHETHER RECENTLY CHANGED SOLID WASTE HANDLING PROCEDURES

				MANDATORY RECYCLE LAW		WHETHER CHANGED PROCEDURE		COMMUNITY COLLECTION CENTERS	
	TOTAL	WHOLE-SALERS	RETAILR	YES	NO	YES	NO	YES	NO
TOTAL	169	17	152	42	124	23	146	45	117
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
YES	23	5	18	13	10	23	-	8	15
	13.6	29.4	11.8	31.0	8.1	100.0		17.8	12.8
NO	146	12	134	29	114	-	146	37	102
	86.4	70.6	88.2	69.0	91.9		100.0	82.2	87.2
DK/NA/REF	16	2	14	3	13	-	-	4	11

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

RECYCLING

The majority of wholesalers and large retailers (87 percent) pick up recyclable waste product from their stores for consolidation at the distribution center. Again, cardboard is the most frequently collected recyclable product being picked up by 95 percent of those consolidating at the distribution center followed by aluminum cans (17 percent), fat and bone (15 percent), glass/bottles (10 percent) and plastics at 9 percent each (Table 5).

When asked what recyclable waste products were separated and collected at their distribution centers, almost all respondents said they were involved with some products. For instance, for these companies involved in some kind of recycling, 98 percent are recycling cardboard, 45 percent recycle motor oil, 27 percent, tires, 23 percent, aluminum cans, 16 percent are collecting shrinkwrap and 13 percent collect plastic (Table 6).

Independent operators (companies with less than $50 million annual sales) were similarly asked what waste products they separate and collect at store level. As indicated in table 7, ninety-four percent of all independent operators are involved in some degree of recycling. Of these companies, 90 percent recycle meat trimmings, 80 percent collect cardboard and 47 percent recycle aluminum cans. Produce trimmings and glass/bottles follow, with collection by 37 and 26 percent, respectively.

TABLE 5

RECYCLABLE WASTE PRODUCTS PICKED UP FROM STORES AND RETURNED TO DISTRIBUTION CENTERS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL WHOLESALERS/ LARGER RETAILERS	60 100.0	13 100.0	47 100.0	1 100.0	7 100.0	6 100.0	4 100.0	9 100.0	16 100.0
CARDBOARD	57 95.0	12 92.3	45 95.7	1 100.0	6 85.7	6 100.0	3 75.0	9 100.0	17 106.3
ALUMINUM CANS	10 16.7	3 23.1	7 14.9	-	1 14.3	-	-	2 22.2	4 25.0
MEAT TRIMMINGS (FAT & BONE)	9 15.0	1 7.7	8 17.0	-	2 28.6	2 33.3	1 25.0	1 11.1	2 12.5
GLASS/BOTTLES	6 10.0	2 15.4	4 8.5	1 100.0	1 14.3	-	-	1 11.1	1 6.3
PLASTICS	5 8.3	1 7.7	4 8.5	-	-	-	-	1 11.1	3 18.8
SHRINKWRAP	3 5.0	-	3 6.4	-	-	-	-	1 11.1	2 12.5
OTHER	6 10.0	2 15.4	4 8.5	-	-	-	-	-	3 18.8
NONE	9	5	4	-	1	1	1	-	1
DK/NA/REF	12	1	11	-	5	4	1	1	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1990

TABLE 6
RECYCLABLE WASTE PRODUCTS SEPARATED/COLLECTED AT DISTRIBUTION CENTER

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	56	13	43	1	5	4	4	8	17
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CARDBOARD	55	12	43	1	5	4	4	8	17
	98.2	92.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MOTOR OIL	25	9	16	-	-	-	-	3	10
	44.6	69.2	37.2					37.5	58.8
TIRES	15	5	10	-	-	-	-	3	6
	26.8	38.5	23.3					37.5	35.3
ALUMINUM CANS	13	3	10	-	1	-	-	2	6
	23.2	23.1	23.3		20.0			25.0	35.3
SHRINKWRAP	9	1	8	-	-	-	-	1	7
	16.1	7.7	18.6					12.5	41.2
PLASTICS	7	1	6	-	-	-	-	1	3
	12.5	7.7	14.0					12.5	17.6
GLASS/BOTTLES	5	1	4	1	-	-	-	1	1
	8.9	7.7	9.3	100.0				12.5	5.9
OTHER	13	5	8	-	-	-	-	2	5
	23.2	38.5	18.6					25.0	29.4
NONE	11	5	6	-	2	1	1	2	-
DK/NA/REF	14	1	13	-	6	6	1	-	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 7
RECYCLABLE WASTE PRODUCTS SEPARATED/COLLECTED AT STORES

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	97	-	97	83	10	-	-	-	-
	100.0		100.0	100.0	100.0				
MEAT TRIMMINGS (FAT & BONE)	87	-	87	77	9	-	-	-	-
	89.7		89.7	92.8	90.0				
CARDBOARD	78	-	78	65	10	-	-	-	-
	80.4		80.4	78.3	100.0				
ALUMINUM CANS	46	-	46	42	3	-	-	-	-
	47.4		47.4	50.6	30.0				
PRODUCE TRIMMINGS	36	-	36	30	6	-	-	-	-
	37.1		37.1	36.1	60.0				
GLASS/BOTTLES	25	-	25	23	1	-	-	-	-
	25.8		25.8	27.7	10.0				
PLASTICS	8	-	8	6	1	-	-	-	-
	8.2		8.2	7.2	10.0				
SHRINKWRAP	5	-	5	3	2	-	-	-	-
	5.2		5.2	3.6	20.0				
OTHER	8	-	8	5	1	-	-	-	-
	8.2		8.2	6.0	10.0				
NONE	6	-	6	6	-	-	-	-	-
DK/NA/REF	1	-	1	1	-	-	-	-	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

Companies were questioned on what recyclable waste products they collected at headquarters or office locations. Sixty-nine percent of responding companies collect paper at their office location with a very high 94 percent for companies with annual sales over $1 billion. Cardboard is collected by 55 percent of respondents (75 percent-wholesalers, 53 percent-retailers). Aluminum cans and newspaper are collected by 32 percent and 31 percent of responding companies, respectively.

Shrinkwrap is reported as the most frequently used method of securing pallet loads for shipment from distribution center to store, with 85 percent of companies using this method (Table 9). Banding is next with 27 percent of responding companies reporting its use. Shrinkwrap is highly recyclable but its recycled value can be dramatically reduced if contaminants are present, such as colored or opaque wrap mixed with the more valuable clear plastic wrap. Several retailers have initiated shrinkwrap recycling programs, but it is not yet widely profitable.

TABLE 8

RECYCLABLE WASTE PRODUCTS COLLECTED AT HEADQUARTERS/ OFFICE LOCATIONS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	85	8	77	38	8	1	3	8	16
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PAPER	59	5	54	21	7	1	2	6	15
	69.4	62.5	70.1	55.3	87.5	100.0	66.7	75.0	93.8
CARDBOARD	47	6	41	23	4	-	2	3	7
	55.3	75.0	53.2	60.5	50.0		66.7	37.5	43.8
ALUMINUM CANS	27	1	26	14	6	1	1	1	3
	31.8	12.5	33.8	36.8	75.0	100.0	33.3	12.5	18.8
NEWSPAPER	26	2	24	18	3	-	-	-	3
	30.6	25.0	31.2	47.4	37.5				18.8
OTHER	5	-	5	4	-	-	-	-	-
	5.9		6.5	10.5					
DK/NA/REF	100	11	89	53	15	10	3	2	1

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 9

PALLET LOADS ARE SECURED FOR SHIPMENT BY...

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	165	19	146	87	16	6	4	8	17
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SHRINKWRAP	140	16	124	74	15	3	2	8	15
	84.8	84.2	84.9	85.1	93.8	50.0	50.0	100.0	88.2
BANDING	44	4	40	23	3	4	2	2	3
	26.7	21.1	27.4	26.4	18.8	66.7	50.0	25.0	17.6
CORDAGE	4	1	3	1	-	-	-	-	1
	2.4	5.3	2.1	1.1					5.9
OTHER	10	5	5	2	-	-	-	-	3
	6.1	26.3	3.4	2.3					17.6
DK/NA/REF	20	-	20	4	7	5	2	2	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

DISPOSITION OF RECYCLABLE SOLID WASTE PRODUCTS

Seventy-six percent of companies recycling cardboard sell it, 21 percent give it away and 3 percent return it to the manufacturer (table 10). Of those companies recycling aluminum cans, 46 percent sell it, 39 percent give it away and 15 percent return it to the manufacturer. Sixty-one percent of all companies are involved with recycling meat trimmings, or fat and bone, with the large majority of these selling it (85 percent) as opposed to only 14 percent giving it away (table 12). This is certainly due to the substantial and consistent market for this by-product.

When companies were asked to describe any problems experienced in waste collection or recycling programs, 19 percent reported the lack of consistent market price for recyclable materials. This problem was second only to the increase in costs (landfill charges) noted by 20 percent of respondents.

The law of supply and demand very much comes into play with regard to recycling. The creation and maintenance of markets for recycled goods is a critical element in any solution to the solid waste problem. When there is demand for a recycled product, there is economic incentive to separate and collect that product for recycling. This is evidenced in the percentages of companies involved in recycling cardboard (over 80 percent for all companies) and meat trimmings, which at present, provide a strong market for these recycled products.

For those companies that are recycling meat trimmings, cardboard, aluminum cans or old pallets, the survey found these products were for the most part sold to recyclers. The percentage of companies involved in recycling specific products seems to be a function of that particular products recycled economic value.

TABLE 10

DISPOSITION OF WASTE PRODUCT...CARDBOARD

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	151 100.0	13 100.0	138 100.0	75 100.0	18 100.0	7 100.0	4 100.0	10 100.0	16 100.0
SOLD	115 76.2	13 100.0	102 73.9	45 60.0	15 83.3	7 100.0	4 100.0	10 100.0	16 100.0
GIVEN AWAY	32 21.2	-	32 23.2	27 36.0	3 16.7	-	-	-	-
RETURN TO SOURCE	4 2.6	-	4 2.9	3 4.0	-	-	-	-	-
DK/NA/REF	34	6	28	16	5	4	2	-	1

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 11

DISPOSITION OF WASTE PRODUCT...ALUMINUM CANS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	69 100.0	2 100.0	67 100.0	45 100.0	4 100.0	2 100.0	1 100.0	3 100.0	7 100.0
SOLD	32 46.4	2 100.0	30 44.8	17 37.8	2 50.0	1 50.0	-	2 66.7	6 85.7
GIVEN AWAY	27 39.1	-	27 40.3	21 46.7	1 25.0	1 50.0	1 100.0	1 33.3	-
RETURN TO SOURCE	10 14.5	-	10 14.9	7 15.6	1 25.0	-	-	-	1 14.3
DK/NA/REF	116	17	99	46	19	9	5	7	10

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 12

DISPOSITION OF WASTE PRODUCT...MEAT TRIMMINGS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	113 100.0	2 100.0	111 100.0	77 100.0	13 100.0	4 100.0	2 100.0	4 100.0	6 100.0
SOLD	96 85.0	1 50.0	95 85.6	64 83.1	13 100.0	2 50.0	2 100.0	4 100.0	6 100.0
GIVEN AWAY	16 14.2	1 50.0	15 13.5	12 15.6	-	2 50.0	-	-	-
RETURN TO SOURCE	1 .9	-	1 .9	1 1.3	-	-	-	-	-
DK/NA/REF	72	17	55	14	10	7	4	6	11

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 13

DISPOSITION OF WASTE PRODUCT PLASTICS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	42 100.0	2 100.0	40 100.0	19 100.0	3 100.0	1 100.0	1 100.0	2 100.0	8 100.0
SOLD	14 33.3	1 50.0	13 32.5	4 21.1	-	-	-	1 50.0	7 87.5
GIVEN AWAY	23 54.8	1 50.0	22 55.0	13 68.4	2 66.7	1 100.0	1 100.0	1 50.0	1 12.5
RETURN TO SOURCE	5 11.9	-	5 12.5	2 10.5	1 33.3	-	-	-	-
DK/NA/REF	143	17	126	72	20	10	5	8	9

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 14

DISPOSITION OF WASTE PRODUCT...SHRINKWRAP

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	28 100.0	1 100.0	27 100.0	11 100.0	2 100.0	1 100.0	1 100.0	2 100.0	7 100.0
SOLD	7 25.0	-	7 25.9	-	-	-	-	1 50.0	6 85.7
GIVEN AWAY	18 64.3	1 100.0	17 63.0	9 81.8	2 100.0	1 100.0	1 100.0	1 50.0	1 14.3
RETURN TO SOURCE	3 10.7	-	3 11.1	2 18.2	-	-	-	-	-
DK/NA/REF	157	18	139	80	21	10	5	8	10

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 15

DISPOSITION OF WASTE PRODUCT...GLASS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	39 100.0	1 100.0	38 100.0	23 100.0	3 100.0	1 100.0	1 100.0	2 100.0	3 100.0
SOLD	11 28.2	-	11 28.9	6 26.1	1 33.3	-	-	1 50.0	2 66.7
GIVEN AWAY	20 51.3	1 100.0	19 50.0	12 52.2	1 33.3	1 100.0	1 100.0	1 50.0	-
RETURN TO SOURCE	8 20.5	-	8 21.1	5 21.7	1 33.3	-	-	-	1 33.3
DK/NA/REF	146	18	128	68	20	10	5	8	14

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 16

DISPOSITION OF WASTE PRODUCT...PRODUCE TRIMMINGS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL INDEPENDENTS	48 100.0	-	48 100.0	41 100.0	4 100.0	-	-	-	-
SOLD	3 6.3	-	3 6.3	2 4.9	1 25.0	-	-	-	-
GIVEN AWAY	44 91.7	-	44 91.7	38 92.7	3 75.0	-	-	-	-
RETURN TO SOURCE	1 2.1	-	1 2.1	1 2.4	-	-	-	-	-
DK/NA/REF	56	-	56	49	6	-	-	-	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

WASTE DISPOSAL/RECYCLING PROGRAM

Twenty percent of companies reported the number one problem experienced in their waste collection/recycling program to be the increases in costs, most often related to higher landfill charges or tipping fees (Table 17). There have been dramatic increases in these fees on both the east and west coasts, with significant increases recently being seen even in the midwest region. This trend is expected to continue with the rapid filling of present landfills and bleak prospects for additional sites, particularly in the east and west.

Of the 56 percent of companies who reported experiencing problems with their collection/recycling programs, 34 percent report the unavailability of consistent markets for recycled goods as a major cause of increased costs. There is a relatively even distribution across company size, both by store count and annual retail sales, for companies reporting having this problem. The only exception to this occurs with a significantly higher percentage of large companies reporting a problem with the availability of a consistent market price for recyclable material. When broken down by annual retail sales, 50 percent of companies having greater than $1 billion in annual sales report this problem in contrast to a 11 to 50 percent range for companies with lower sales.

Space limitations for separation/collection areas and problems with waste collection or pick-up were the next most frequently reported problems at seven percent and six percent, respectively. Forty-four percent of companies report experiencing no problems with their waste programs.

TABLE 17

PROBLEMS EXPERIENCED WITH WASTE DISPOSAL/RECYCLING PROGRAM

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	106 100.0	8 100.0	98 100.0	53 100.0	13 100.0	5 100.0	2 100.0	8 100.0	12 100.0
INCREASED COSTS (LANDFILL CHARGES)	21 19.8	1 12.5	20 20.4	12 22.6	3 23.1	1 20.0	-	2 25.0	2 16.7
UNAVAILABILITY OF CONSISTENT MARKET PRICE FOR RECYCLABLE MATERIAL	20 18.9	2 25.0	18 18.4	6 11.3	2 15.4	1 20.0	1 50.0	1 12.5	6 50.0
SPACE LIMITATIONS	7 6.6	1 12.5	6 6.1	4 7.5	1 7.7	-	-	1 12.5	-
COLLECTION/PICK-UP PROBLEMS	6 5.7	1 12.5	5 5.1	5 9.4	-	-	-	-	-
DIRTY/UNSANITARY POSSIBLE HEALTH HAZZARD	5 4.7	-	5 5.1	2 3.8	1 7.7	-	-	1 12.5	1 8.3
SEPARATION/ MAINTENENCE OF SEPARATE HOLDING AREAS	4 3.8	-	4 4.1	4 7.5	-	-	-	-	-
MISCELLANEOUS	14 13.2	2 25.0	12 12.2	5 9.4	2 15.4	1 20.0	-	-	4 33.3
NONE	47 44.3	3 37.5	44 44.9	21 39.6	7 53.8	3 60.0	1 50.0	4 50.0	4 33.3
DK/NA/REF	79	11	68	38	10	6	4	2	5

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 18

RECYCLING PROCEDURES THAT HAVE PROVED UNSUCCESSFUL AND HAS BEEN DISCONTINUED

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	83	9	74	42	8	2	1	5	12
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SHRINKWRAP/CARDBOARD PAPER RECYCLING NOT COST JUSTIFIED LACK OF DEMAND	10	1	9	3	2	-	-	-	3
	12.0	11.1	12.2	7.1	25.0				25.0
CAN/BOTTLE RECYCLING DISCONTINUED DUE TO COST/MAINTENANCE FACTORS	7	2	5	2	-	1	-	-	1
	8.4	22.2	6.8	4.8		50.0			8.3
MISCELLANEOUS	11	1	10	5	-	-	-	1	4
	13.3	11.1	13.5	11.9				20.0	33.3
NONE	57	5	52	32	6	1	1	4	6
	68.7	55.6	70.3	76.2	75.0	50.0	100.0	80.0	50.0
DK/NA/REF	102	10	92	49	15	9	5	5	5

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

There is no significant difference in the percentages of respondents who perceive a problem with increased costs in areas with mandatory recycling laws as opposed to those not in these areas. However, there is a marked difference in percentages of companies reporting other problems. Twenty-seven percent of companies operating stores in areas with mandatory recycling laws report experiencing problems with finding consistent markets for recycled products compared to 16 percent in unregulated areas. A more striking contrast is seen with companies in mandatory recycling areas reporting space limitation problems (17 percent) and collection/pick-up problems (10 percent) compared to one percent and four percent, respectively, for those operating in areas without these laws. Thirty percent of companies operating stores in areas having mandatory laws report having experienced no problems with their programs vs. a 50 percent response for companies operating in areas without restrictions.

When asked whether their company had any recycling procedures that were tried, proven unsuccessful and subsequently discontinued 31 percent of those responding noted such procedures (table 18). Fifty-seven percent of companies operating in areas with mandatory recycling laws reported discontinuing some unsuccessful recycling procedures vs. only 20 percent of companies unaffected by mandatory regulations. Two discontinued procedures were mentioned most frequently. Shrinkwrap/cardboard/paper recycling was tried and discontinued by 12 percent of respondents due to a lack of demand for the recycled product or lack of cost justification. Eight percent reported discontinuing can/bottle recycling because of cost and maintenance factors. An additonal 13 percent of companies detailed myriad miscellaneous procedures which were discontinued for various reasons. These figures echo the results from the question on types of problems experienced with waste collection programs revealing a fairly widespread problem with availability of consistent markets for most recycled material. Creation of markets for recycled products remains a major challenge to overcome in any solution to the solid waste dilemma.

COMMUNITY COLLECTION CENTERS

When asked whether any stores served as community collection centers for recyclable waste products, 30% of retailers reported having such centers at one or more of their stores (table 19). The percentage of retailers operating community collection centers rose relative to the number of stores operated by the company. The percentages ranged from 22 percent of those retailers operating one store to 46 percent for those with 51+ stores having one or more of their stores with collection centers. The relationship between whether a company operates in areas having mandatory recycling laws and those companies having stores serving as community collection sites seems to be significant. Forty-four percent of respondents operating in regulated locales have some collection sites, while only 22 percent without mandatory restrictions operate collection centers.

Of the companies having some stores serving as community collection centers, a reported 60 percent of their retail stores operate these centers. For companies with less than 30 million in annual sales and operating community centers, an average of 84 percent of stores served as collection centers (table 20). Forty-six percent of retailers have their collection service operated by a community organization, 28 percent reported it as an independent profit making venture, while 26 percent used this service as a profit making opportunity for the store (table 22).

Seventy-one percent of store-level collection centers collect aluminum. Additionally, 50 percent collect glass/bottles, 42 percent collect paper/paperboard products, and 29 percent collect plastic. When categories of waste collected are differentiated between store collection centers operating in and out of areas with mandatory recycling laws (including bottle deposit states), there are notable discrepancies. First, with collection of glass/bottles, for companies operating centers in mandated areas 68 percent collect glass vs. 39 percent in unregulated areas. Second, plastic is collected by 47 percent of these centers in areas with laws vs. only 18 percent of those without laws.

TABLE 19

WHETHER STORE(S) SERVE AS A COMMUNITY COLLECTION CENTER FOR RECYCLABLE WASTE

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	177	15	162	90	23	11	6	10	17
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
YES	49	-	49	21	4	5	3	6	8
	27.7		30.2	23.3	17.4	45.5	50.0	60.0	47.1
NO	128	15	113	69	19	6	3	4	9
	72.3	100.0	69.8	76.7	82.6	54.5	50.0	40.0	52.9
DK/NA/REF	8	4	4	1	-	-	-	-	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 20

NUMBER OF COLLECTION CENTERS AS A PERCENTAGE OF STORES THAT THE RETAILERS OPERATE

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
	38	-	38	14	4	3	3	5	7
	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0
1% - 20%	7	-	7	2	-	1	1	1	2
	18.4		18.4	14.3		33.3	33.3	20.0	28.6
21% - 40%	7	-	7	-	2	2	-	-	2
	18.4		18.4		50.0	66.7			28.6
41% - 60%	7	-	7	1	1	-	1	1	2
	18.4		18.4	7.1	25.0		33.3	20.0	28.6
61% - 99%	3	-	3	-	-	-	1	1	1
	7.9		7.9				33.3	20.0	14.3
100%	14	-	14	11	1	-	-	2	-
	36.8		36.8	78.6	25.0			40.0	
DK/NA/REF	11	-	11	7	-	2	-	1	1

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 21

CATEGORIES OF WASTE COLLECTED AT COLLECTION CENTERS

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
	48	-	48	20	4	5	3	6	8
	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0
ALUMINUM	34	-	34	9	3	4	3	6	8
	70.8		70.8	45.0	75.0	80.0	100.0	100.0	100.0
GLASS BOTTLES	24	-	24	8	2	2	2	3	6
	50.0		50.0	40.0	50.0	40.0	66.7	50.0	75.0
PAPER/PAPERBOARD	20	-	20	8	2	2	2	2	3
	41.7		41.7	40.0	50.0	40.0	66.7	33.3	37.5
PLASTIC	14	-	14	4	1	-	-	3	5
	29.2		29.2	20.0	25.0			50.0	62.5
OTHER	10	-	10	6	1	1	1	-	-
	20.8		20.8	30.0	25.0	20.0	33.3		
DK/NA/REF	1	-	1	1	-	-	-	-	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 22

WHETHER THIS SERVICE IS: .....

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
	46	-	46	19	4	5	3	6	7
	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0
A PROFIT MAKING OPPORTUNITY FOR YOUR STORE	12	-	12	4	1	1	1	3	2
	26.1		26.1	21.1	25.0	20.0	33.3	50.0	28.6
A SERVICE OPERATED BY A COMMUNITY ORGANIZATION	21	-	21	11	2	4	1	2	-
	45.7		45.7	57.9	50.0	80.0	33.3	33.3	
AN INDEPENDENT PROFIT MAKING VENTURE	13	-	13	4	1	-	1	1	5
	28.3		28.3	21.1	25.0		33.3	16.7	71.4
DK/NA/REF	3	-	3	2	-	-	-	-	1

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

COMMUNITY EDUCATION PROGRAMS

Twenty-six percent of all companies participate in some kind of community education program on recycling or solid waste. For companies having over $1 billion in annual sales, 60 percent report involvement in such programs. Fifty percent of companies operating community collection centers at one or more of their stores report participating in community education programs compared to only 17 percent of companies participating in a education program where community collection centers are not operated. If a company operates a community collection center at store level they seem much more likely to have a community education program with which to integrate this service.

TABLE 23

WHETHER COMPANY PARTICIPATES IN A COMMUNITY EDUCATION PROGRAM(S) ON RECYCLING/ SOLID WASTE

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	172	14	158	89	23	9	6	10	15
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
YES	44	2	42	21	5	1	1	2	9
	25.6	14.3	26.6	23.6	21.7	11.1	16.7	20.0	60.0
NO	128	12	116	68	18	8	5	8	6
	74.4	85.7	73.4	76.4	78.3	88.9	83.3	80.0	40.0
DK/NA/REF	13	5	8	2	-	2	-	-	2

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

METHODOLOGY

The 1989 FMI Solid Waste Survey questionnaires were mailed to presidents and CEOs of all FMI member companies throughout the United States and Canada. Two different but similar questionnaires were developed. An independents questionnaire was sent to those retailers with under $50 million in annual sales. A second questionnaire was mailed to those retailers and wholesalers having annual sales of $50 million or greater and included questions on distribution center procedures. Copies of the questionnaires have been included in this report with a profile of respondents appearing in Tables 24 through 27.

One hundred and eighty-nine companies responded to the survey for a 15 percent response rate. This included all sizes of retailers and wholesalers. These companies operate or service over 15,000 stores in the U.S. and Canada.

The survey results have been tabulated by the size of the company and whether the company is a wholesaler or retailer. Except where noted, the reported averages are unweighted with each responding company representing one.

RESPONDENT PROFILE

TABLE 24

NUMBER OF RESPONDENTS BY SIZE AND TYPE OF COMPANY

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	185	19	166	91	23	11	6	10	17
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
INDEPENDENTS	104	-	104	90	10	-	-	-	-
	56.2		62.7	98.9	43.5				
WHOLESALERS/ LARGER RETAILERS	81	19	62	1	13	11	6	10	17
	43.8	100.0	37.3	1.1	56.5	100.0	100.0	100.0	100.0

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 25

COMPANY'S ANNUAL SALES IN 1988

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL	176 100.0	18 100.0	158 100.0	91 100.0	23 100.0	11 100.0	6 100.0	10 100.0	17 100.0
UNDER $ 10 MILLION	62 35.2	1 5.6	61 38.6	61 67.0	-	-	-	-	-
$ 10 - $ 30 MILLION	31 17.6	1 5.6	30 19.0	30 33.0	-	-	-	-	-
$ 31 - $100 MILLION	26 14.8	3 16.7	23 14.6	-	23 100.0	-	-	-	-
$101 - $250 MILLION	12 6.8	1 5.6	11 7.0	-	-	11 100.0	-	-	-
$251 - $500 MILLION	9 5.1	3 16.7	6 3.8	-	-	-	6 100.0	-	-
$501 - $1 BILLION	11 6.3	1 5.6	10 6.3	-	-	-	-	10 100.0	-
$ 1 - $3 BILLION	14 8.0	6 33.3	8 5.1	-	-	-	-	-	8 47.1
$ 4 BILLION +	11 6.3	2 11.1	9 5.7	-	-	-	-	-	9 52.9
DK/NA/REF	9	1	8	-	-	-	-	-	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 26

NUMBER OF SUPERMARKETS OPERATED BY COMPANY (RETAILERS)

				RETAILER SALES					
	TOTAL	WHOLE-SALERS	RETAILR	UNDER $30 MIL	$31-100 MIL	$101-$250 MIL	$251-$500 MIL	$501-$1 BIL	$1 BIL PLUS
TOTAL RETAILER	156 100.0	-	156 100.0	86 100.0	23 100.0	11 100.0	6 100.0	10 100.0	17 100.0
1	56 35.9	-	56 35.9	55 64.0	1 4.3	-	-	-	-
2 - 4	29 18.6	-	29 18.6	26 30.2	3 13.0	-	-	-	-
5 - 10	25 16.0	-	25 16.0	4 4.7	15 65.2	5 45.5	-	-	-
11 - 50	22 14.1	-	22 14.1	1 1.2	4 17.4	6 54.5	5 83.3	5 50.0	-
51 +	24 15.4	-	24 15.4	-	-	-	1 16.7	5 50.0	17 100.0
DK/NA/REF	10	-	10	5	-	-	-	-	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

TABLE 27

NUMBER OF SUPERMARKETS SERVICED BY COMPANY (WHOLESALERS)

	TOTAL	WHOLE-SALERS	RETAILR
TOTAL WHOLESALERS AT, 0.1	18 100.0	18 100.0	-
1	-	-	-
2 - 4	1 5.6	1 5.6	-
5 - 10	1 5.6	1 5.6	-
11 - 50	6 33.3	6 33.3	-
51 +	10 55.6	10 55.6	-
DK/NA/REF	1	1	-

SOURCE: FMI SOLID WASTE MANAGEMENT STUDY, 1989

SOLID WASTE QUESTIONNAIRE

(Wholesalers and Larger Retailers)

With available landfill space rapidly decreasing as the amount of solid waste being generated is increasing, we are faced with an environmental crisis. Recognizing the need for comprehensive solid waste management planning at all levels of government, FMI would like information on your company's solid waste policy and procedures. FMI will use this information to work with federal, state and local officials in developing effective solid waste management plans. The results will also assist companies by showing what is currently being done in the industry to address the solid waste issue.

Please answer all questions pertinent to you company's operation. All data will be held in strict confidence. If you have any questions, plea..e contact Tim Cochran in FMI's research department at (202)-429-4551.

COMPANY INFORMATION

1. Does your company track solid waste disposal figures (costs/tonnage)?

   /__/ Yes (if yes, answer a-b) /__/ No

   a. What were your costs for solid waste removal for:

   1987 $ _____
   1988 $ _____
   1989 $ _____ (projected)

   b. What was your solid waste total tonnage/cubic yards for:

   1987 _____
   1988 _____
   1989 _____ (projected)

2. Do you operate in a state or locale with mandatory recycling laws or ordinance?

   /__/ Yes /__/ No

   a. If yes, in what states or locales do you operate where there are these laws?

   _____ _____
   _____ _____
   _____ _____
   _____ _____

DISTRIBUTION CENTER

1. What recyclable waste products, if any, do you separate and collect at your distribution center?

/__/ Cardboard
/__/ Aluminum Cans
/__/ Shrinkwrap
/__/ Glass/Bottles
/__/ Plastics
/__/ Tires
/__/ Motor Oil
/__/ None
/__/ Other _____
_____
_____

2. What recyclable waste products, if any, do you pick up from your stores and return to the distribution center for consolidation?

/__/ Cardboard
/__/ Aluminum Cans
/__/ Shrinkwrap
/__/ Glass/Bottles
/__/ Plastics
/__/ Meat trimmings (fat & bone)
/__/ None
/__/ Other _____
_____
_____

3. What is the disposition of these waste products? (please circle)

	SOLD	GIVEN AWAY	RETURN TO MANUFACTURER
Cardboard	1	2	3
Plastics	1	2	3
Aluminum cans	1	2	3
Shrinkwrap	1	2	3
Glass	1	2	3
Meat trimmings	1	2	3
Motor oil	1	2	3
Tires	1	2	3
Other _____	1	2	3
Other _____	1	2	3

4. a. How are pallet loads secured for shipment to stores?

/__/ Cordage
/__/ Banding
/__/ Shrinkwrap
/__/ Other (please specify)
_____

5. What do you do with unusable/unrepairable pallets?

/__/ Sell/Give away
/__/ Dispose of in trash
/__/ Other (please specify)
_____

6. What problems, if any, have you experienced with your waste collection/recycling program? (please briefly describe below)

_____
_____
_____
_____

7. What recycling procedures, if any, have proved unsuccessful and have been discontinued? (please describe)

_____
_____
_____
_____

8. Have you recently changed your solid waste handling procedures?

/__/ Yes (describe change(s) below) /__/ No

_____
_____
_____
_____

9. Do you plan to implement additional/different solid waste handling procedures in the near future?

/__/ Yes (if yes, describe below) /__/ No

_____
_____
_____
_____

STORES AND HEADQUARTERS

1. What recyclable waste products, if any, do you collect at store level that are <u>not</u> returned to the Distribution Center for consolidation?

/__/ Cardboard
/__/ Aluminum Cans
/__/ Shrinkwrap
/__/ Glass Bottles
/__/ Other _____
_____
_____

/__/ Tires
/__/ Motor Oil
/__/ Plastics
/__/ None

2. Do any of your stores serve as community collection centers for recyclable waste products?

/__/ Yes (If yes, please answer a-c) /__/ No

a. How many? _____

b. What categories of waste are collected?

/__/ Paper/Paperboard
/__/ Aluminum
/__/ Plastic
/__/ Glass/Bottles
/__/ Other (please describe)
_____
_____

c. Is this service: (please check all that apply)

/__/ A profit making opportunity for your store
/__/ A service operated by a community organization
/__/ An independent profit-making venture

3. Do you participate in a community education program(s) on recycling/solid waste?

/__/ Yes /__/ No

4. What recyclable waste products, if any, do you collect at your headquarters/office locations?

/__/ Paper (eg. computer, xerox)
/__/ Cardboard
/__/ Aluminum cans
/__/ Newspaper
/__/ Other _____
_____

GENERAL INFORMATION

1. Is your company primarily (majority of sales) a food

/__/ Retailer? /__/ Wholesaler?

2. How many supermarkets (a supermarket is a retail food store with annual sales of at least $2 million) do you:

a. Operate? _____ Supermarkets
b. Service? _____ Supermarkets

3. What were your company's approximate annual sales in 1988 (please check the proper category)?

Annual Sales:
/__/ Under $10 Million
/__/ $10-$30 Million
/__/ $31-$100 Million
/__/ $101-$250 Million
/__/ $251-$500 Million
/__/ $501-$1 Billion
/__/ $1-$3 Billion
/__/ Over $3 Billion

SOLID WASTE QUESTIONNAIRE

(Independents)

With available landfill space rapidly decreasing as the amount of solid waste being generated is increasing, we are faced with an environmental crisis. Recognizing the need for comprehensive solid waste management planning at all levels of government, FMI would like information on your solid waste policy and procedures. FMI will use this information to work with federal, state and local officials in developing effective solid waste management plans. The results will also assist companies by showing what is currently being done in the industry to address the solid waste issue.

Please answer all questions pertinent to your operation. All data will be held in strict confidence. If you have any questions, please contact Tim Cochran in FMI's research department at (202)-429-4551.

COMPANY INFORMATION

1. Do you track solid waste disposal figures (costs/tonnage)?

   /__/ Yes (if yes, answer a-b) /__/ No

   a. What were your costs for solid waste removal for:

   1987 $ _____
   1988 $ _____
   1989 $ _____ (projected)

   b. What was your solid waste's total tonnage/cubic yards for?

   1987 _____
   1988 _____
   1989 _____ (projected)

2. Do you operate in a state or locale with mandatory recycling laws?

   /__/ Yes /__/ No

STORES

1. What recyclable waste products, if any, do you separate and collect at your store(s)?

   /__/ Cardboard
   /__/ Aluminum Cans
   /__/ Shrinkwrap
   /__/ Glass/Bottles
   /__/ Plastics
   /__/ Meat trimmings (fat & bone)
   /__/ Produce trimmings
   /__/ None
   /__/ Other _____

2. What is the disposition of these waste products? (please circle)

	SOLD	GIVEN AWAY	RETURN TO D.C.
Cardboard	1	2	3
Plastics	1	2	3
Aluminum cans	1	2	3
Shrinkwrap	1	2	3
Glass	1	2	3
Meat trimmings	1	2	3
Produce trimmings	1	2	3
Other _____	1	2	3
Other _____	1	2	3

3. a. How are palletized deliveries secured for shipment when received?

/__/ Cordage /__/ Shrinkwrap

/__/ Banding /__/ Other (please specify)

_____

4. What problems, if any, have you experienced with your waste collection/recycling program? (please briefly describe below)

_____

_____

_____

_____

5. What recycling procedures, if any, have proved unsuccessful and have been discontinued? (please describe)

_____

_____

_____

_____

6. Have you recently changed your solid waste handling procedures?

/__/ Yes (describe change(s) below) /__/ No

_____

_____

_____

_____

7. Do you plan to implement additional/different solid waste handling procedures in the near future?

/__/ Yes (if yes, describe below) /__/ No

_____

_____

_____

_____

8. Does your store(s) serve as community collection centers for recyclable waste products?

/__/ Yes (If yes, please answer a-c) /__/ No

a. How many? _____

b. What categories of waste are collected?

/__/ Paper/paperboard
/__/ Aluminum
/__/ Plastic
/__/ Glass/Bottles
/__/ Other (please describe)

c. Is this service: (please check all that apply)

/__/ A profit making opportunity for your store
/__/ A service operated by a community organization?
/__/ An independent profit-making venture

9. Do you participate in a community education program(s) on recycling/solid waste?

/__/ Yes /__/ No

10. What recyclable waste products, if any, do you collect from your office location?

/__/ Paper (eg. computer, xerox)
/__/ Cardboard
/__/ Aluminum
/__/ Newspaper
/__/ Other
_____
_____

GENERAL INFORMATION

1. How many supermarkets do you operate (a supermarket is a retail food store with annual sales of at least $2 million)?

_____ Supermarkets

2. What were your company's approximate annual supermarket sales in 1988 (please check the proper category)?

Annual Sales:
/__/ Under $10 Million
/__/ $10-$30 Million
/__/ $31-$100 Million
/__/ $101-$250 Million
/__/ $251-$500 Million
/__/ $501-$1 Billion
/__/ $1-$3 Billion
/__/ Over $3 Billion

FOOD MARKETING INSTITUTE

1750 K Street, NW · Washington, DC 20006
202/452-8444 TELEX: 892722 FMI USA WSH
FAX: 202/429-4519